

OPIOIDS

- Safe and effective for postoperative pain control and can be used safely with other agents and techniques.
- No significant risk of addiction with short-term use for postoperative pain management. Addiction is often a concern of patients and should be addressed preoperatively.
- There is no ceiling dose for agonist opioids; dose should be determined by patient response.
- Respiratory depression should not be a concern if appropriate dosing, routes, and frequency are used with adequate patient monitoring.
- Opioids have significant side effects that can be modified by dose, route, and adjunctive agents.
- Longer-acting and safer alternatives to meperidine exist. If meperidine is indicated, its use should be restricted to the recovery room or limited to less than 24 h, in doses less than 600 mg/24 h.

ACETAMINOPHEN (APAP) & NSAIDS

- APAP & NSAIDs are effective for postoperative pain, but are often not sufficient as sole agent for major surgery.
- APAP & NSAIDs often decrease opioid requirement and improve analgesia.
- NSAIDs often increase bleeding time.
- For patients who are unable to tolerate routine use of NSAIDs, APAP can also be used as an opioid-sparing adjunct.
- Avoid the use of NSAIDs in the following situations:
 - Hypersensitivity to NSAIDs
 - Peptic ulcer disease
 - Significant renal impairment.
 - Ongoing bleeding

LOCAL ANESTHETICS

- Are effective when administered by local, regional, epidural or intrathecal injection or infusion.
- In combination with other agents (e.g., opioids), may have prolonged duration of action.
- Allergic reaction occur mainly with the ester local anesthetics.
- Patients with cardiac disease, hypothyroidism, or other endocrine disease may be more susceptible to toxic effects of local anesthetics.

GLUCOCORTICOIDS

- Are potent anti-inflammatory agents used as adjunctive agents for short term prevention of certain types of postoperative pain.
- Dexamethasone has antiemetic effects that may be beneficial in management of postoperative nausea or vomiting (PONV).
- May increase risks of infection and delayed wound healing.

PATIENT EDUCATION

Questions to ask the patient:

- Have you been told how your pain will be managed postoperatively?
- What experience do you have with postoperative pain relief?
- What are your concerns about pain medication and pain relief?
- Do you have any questions about your postoperative pain management plan?

Questions to answer for the patient:

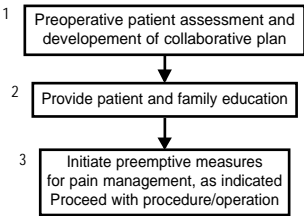
- What is pain?
- Why is pain control important?
- Can pain be relieved?
- If I am taking pain medications already, does it make a difference?
- How can I help the doctors and nurses “measure” my pain?
- What is an appropriate goal for pain relief?
- When should I ask for pain medication?
- How soon after I take medicine should my pain be relieved?
- Will I become addicted to the pain medicine?
- How can my pain be controlled?
- What medications are used for pain control (which am I going to have)?
- How will my pain medications be given?
- What are some non-medication methods of pain management?
 - Education—learning about the operation and the expected pain
 - Relaxation—e.g., abdominal breathing, jaw relaxation
 - Physical agents—e.g., cold, heat, massage, exercise
 - Distraction—e.g., music, videos, humor
 - Hypnosis—focused attention state
- What should I report to my caregivers (nurse, doctor)?
 - Previous drug reactions and allergies
 - Conditions such as stomach ulcers, kidney/heart/liver/bleeding problems
 - All current medications including
 - over the counter drugs,
 - herbal remedies,
 - vitamins, and
 - nutritional supplements
 - If pain medicine does not work
 - Plans to drink alcohol, operate machinery or drive a car
 - All side effects of pain interventions

Give the patient: Written plan for pain management

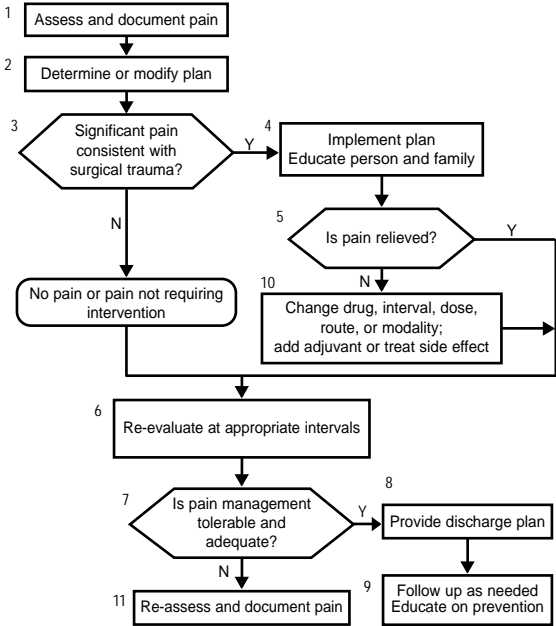
VA/DoD Clinical Practice Guideline for Management of Postoperative Pain POCKET GUIDE

PHARMACOLOGIC INTERVENTIONS & PATIENT EDUCATION

PREOPERATIVE MANAGEMENT



POSTOPERATIVE MANAGEMENT



VA access to full guidelines: <http://www.oqp.med.va.gov/cpg/cpg.htm>
DoD access to full guidelines: <http://www.cs.amedd.army.mil/qmo>

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SUMMARY TABLE: SITE-SPECIFIC PAIN MANAGEMENT INTERVENTIONS											
	Pharmacologic Therapy (Route)							Non-Pharmacologic			
Type of surgery by body region	PO	IM	IV	Epidural	Intrathecal	IV PCA	Regional	Physical		Cognitive	Comments
1. Head and neck											
Ophthalmic	<i>OP, NS</i>	OP, NS	OP, NS	--	--	RARELY	LA	C		X	If risk/actual bleeding, avoid NS
Craniotomy	OP, NS	<i>OP, NS</i>	<i>OP, NS</i>	--	--	OP	LA				If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
Radical neck	OP, NS	OP, NS	OP, NS	--	--	<i>OP</i>	LA			X	
Oral-maxillofacial	<i>OP, NS</i> , CS	OP, NS, CS	OP, NS, CS	--	--	OP	LA	C,	I	X	
2. Thorax-noncardiac											
Thoracotomy	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	LA	C,	T	X	If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
Mastectomy	OP, NS	OP, NS	<i>OP, NS</i>	OP, LA	OP, LA	<i>OP</i>	LA	C,	T	X	
Thoracoscopy	OP, NS	OP, NS	<i>OP, NS</i>	OP, LA	OP, LA	OP	LA	C,	T	X	
3. Thorax-Cardiac											
CABG	OP, NS	OP, NS	OP, NS	RARELY	OP	OP	RARELY				If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
MID-CAB	OP, NS	OP, NS	<i>OP, NS</i>	RARELY	OP	OP	LA			X	If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
4. Upper abdomen											
Laparotomy	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	<i>OP</i>	LA	E,	T	X	Opioids may impair bowel function If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
Laparoscopic cholecystectomy	<i>OP, NS</i>	<i>OP, NS</i>	<i>OP, NS</i>	RARELY	RARELY	OP	LA	E,	T	X	Opioids may cause biliary spasm
Nephrectomy	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	LA	E,	T	X	
5. Lower abdomen/pelvis											
Hysterectomy	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	<i>OP</i>	LA	E,		X	Opioids may impair bowel function
Radical prostatectomy	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	--	E		X	Opioids may impair bowel function If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS
Hernia	<i>OP, NS</i>	OP, NS	OP, NS	RARELY	OP	RARELY	LA	C,		X	
6. Back/Spinal											
Laminectomy	OP, NS	OP, NS	<i>OP, NS</i>	RARELY	RARELY	OP	--	C, E		X	
Spinal fusion	OP	OP	<i>OP</i>	RARELY	RARELY	<i>OP</i>	--	E	I	X	Use of NS may be associated with nonunion
7. Extremities											
Total hip replacement	OP, NS	OP, NS	<i>OP, NS</i>	OP, LA	OP, LA	OP	LA	C, E,	T	X	Use of NS controversial
Total knee replacement	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	LA	C, E,	T	X	Use of NS controversial
Knee arthroscope/Arthroscopic joint repair	OP, NS	OP, NS	OP, NS	RARELY	OP	OP	LA	C, E,	T	X	
Amputation	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	LA	C, E,	T	X	
Shoulder	OP, NS	OP, NS	OP, NS	--	--	OP	LA	C, E,	I, T	X	
Vascular	OP, NS	OP, NS	OP, NS	OP, LA	OP, LA	OP	LA	C, E		X	If risk/actual bleeding, avoid NS* If renal hypoperfusion, avoid all NS

C = Cold; CABG = Coronary artery bypass graft; CS = Corticosteroid; E = Exercise; I = Immobilization; LA = Local Anesthetics; MID-CAB = Minimally Invasive Direct Coronary Artery Bypass;

NS = NSAIDS; OP = Opioids; T = TENS; X = Use of cognitive therapy is patient-dependent rather than procedure-dependent; * = Bleeding is not contraindication for COX-2 inhibitors

Indications for Use: **Bold/Shaded**: Preferred based on evidence (OE=I: R=A): *Italicized/Bold*: Common usage based on consensus (OE=III): Plain Text: Possible Use

How to Use This Table

- Select operation from column 1, "Type of surgery by body region". If your operation is not exactly listed, pick one that is close to it. For example, for a patient having a colon operation the appropriate choice would be "laparotomy".
- Examine options on horizontal axis. Factors to consider:
 - Evidence rating—i.e., is it the best available?
 - Patient factors
 - patient motivation or desire
 - medical conditions (example: anticoagulation)
 - Institutional factors
 - Who will implement choice?
 - Is specialized equipment available?
 - Are the appropriate practitioners available (Example: Is physical therapy available for placement of TENS)
- Additional considerations and suggestions can be found under the pharmacologic, non-pharmacologic and intervention sections.